

Claims

What is claimed is:

5 1. A method for identifying one or more mean items for a plurality of items, J, each of said items having at least one symbolic attribute, each of said symbolic attributes having at least one possible value, said method comprising the steps of:

computing a variance for each of said items; and

10 selecting at least one item that minimizes said variance as the mean symbolic value.

15 2. The method of claim 1, wherein said symbolic values for said at least one selected item comprise said mean of said plurality of items.

3. The method of claim 1, further comprising the step of assigning a label to said plurality of items using at least one symbolic value from said selected item.

20 4. The method of claim 1, wherein said plurality of items are a cluster including similar items.

5. The method of claim 1, wherein said items are programs.

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6. The method of claim 1, wherein said items are content.

7. The method of claim 1, wherein said items are products.

30 8. The method of claim 1, wherein said step of computing a variance is performed as follows:

$$\text{Var (J)} = \sum_{i \in J} (x_i - \bar{x})^2$$

where J is a cluster of items from the same class, x_i is an item, i , and x_μ is the item(s) in said plurality of items, J , such that it minimizes said $\text{Var}(J)$.

5 9. A method for characterizing a plurality of items, J , each of said items having at least one symbolic attribute, each of said symbolic attributes having at least one possible value, said method comprising the steps of:

computing a variance for each of said items; and

10 characterizing said plurality of items, J , with at least one mean item by selecting at least one item that minimizes said variance as the mean symbolic value.

15 10. The method of claim 9, wherein said symbolic values for said at least one selected item comprise said mean of said plurality of items.

20 11. The method of claim 9, further comprising the step of assigning a label to said plurality of items using at least one symbolic value from said at least one mean item.

25 12. The method of claim 9, wherein said plurality of items are a cluster including similar items.

13. The method of claim 9, wherein said step of computing a variance is performed as follows:

$$\text{Var}(J) = \sum_{i \in J} (x_i - x_\mu)^2$$

where J is a cluster of items from the same class, x_i is an item, i , and x_μ is the item(s) in said plurality of items, J , such that 30 it minimizes said $\text{Var}(J)$.

14. A system for identifying one or more mean items for a plurality of items, J , each of said items having at least one

symbolic attribute, each of said symbolic attributes having at least one possible value, said system comprising:

a memory for storing computer readable code; and

5 processor operatively coupled to said memory, said processor configured to:

compute a variance for each of said items; and

select at least one item that minimizes said variance as the mean symbolic value.

10 15. The system of claim 14, wherein said symbolic values for said at least one selected item comprise said mean of said plurality of items.

15 16. The system of claim 14, wherein said processor is further configured to assign a label to said plurality of items using at least one symbolic value from said selected item.

20 17. The system of claim 14, wherein said plurality of items are a cluster including similar items.

18. The system of claim 14, wherein said step of computing a variance is performed as follows:

$$\text{Var (J)} = \sum_{i \in J} (x_i - x_{\mu})^2$$

where J is a cluster of items from the same class, x_i is an item, 25 i, and x_{μ} is the item(s) in said plurality of items, J, such that it minimizes said Var (J) .

30 19. An article of manufacture for identifying one or more mean items for a plurality of items, J, each of said items having at least one symbolic attribute, each of said symbolic attributes having at least one possible value, comprising:

a computer readable medium having computer readable code means embodied thereon, said computer readable program code means comprising:

5 a step to compute a variance for each of said items;
and

a step to select at least one item that minimizes said variance as the mean symbolic value.

10 20. A system for identifying one or more mean items for a plurality of items, J , each of said items having at least one symbolic attribute, each of said symbolic attributes having at least one possible value, said system comprising:

means for computing a variance for each of said items;
and

means for selecting at least one item that minimizes said variance as the mean symbolic value.